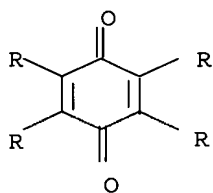


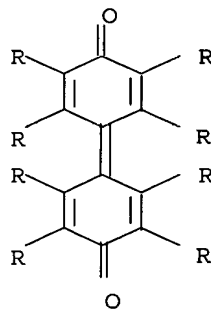
IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for emulsion polymerization of one or more olefins comprising forming a reaction product by reacting a ligand of the formula Ia or Ib or a mixture of at least two of the ligands Ia or Ib



Ia



Ib

in each of which R denotes one or more of the following radicals:

hydrogen

halogen

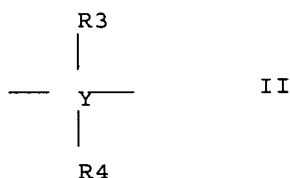
nitrile

C₁-C₁₂ alkyl, C₁-C₁₂ alkoxy, C₇-C₁₃ aralkyl, C₆-C₁₄ aryl groups, unsubstituted or substituted by: C₁-C₁₂ alkyl groups, halogens, C₁-C₁₂ alkoxy, C₃-C₁₂ cycloalkyl, C₁-C₁₂ thioether groups, carboxyl groups or sulfo groups present where appropriate in the form of their salts, and also amino groups with hydrogen and/or C₁-C₁₂ alkyl radicals

amino groups NR¹R², where R¹ and R² together or separately are hydrogen, C₁-C₁₂ alkyl, C₇-C₁₃ aralkyl or C₆-C₁₄ aryl groups and may additionally form a saturated or unsaturated 5- to 10-membered ring, unsubstituted or substituted by: C₁-C₁₂ alkyl groups, halogens, C₁-C₁₂ alkoxy, C₃-C₁₂ cycloalkyl, C₁-C₁₂ thioether groups, carboxyl groups or sulfo

groups present where appropriate in the form of their salts, and also amino groups with hydrogen and/or C₁-C₁₂ alkyl radicals

and where identical or different compounds of the formulae Ia and Ib may where appropriate also be bridged by one or more C₁-C₁₂ alkylene, C₂-C₁₂ alkylated azo or formula II bridges



where Y is silicon or germanium and R³ and R⁴ are hydrogen and/or C₁-C₁₂ alkyl, with a phosphine compound PR'₃, where R' is hydrogen, C₁-C₁₂ alkyl, C₄-C₁₂ cycloalkyl, C₇-C₁₅ aralkyl or C₆-C₁₅ aryl groups,

or with a diphosphine compound R'₂P-G-PR'₂, where R' is as defined for the phosphine compounds PR'₃ and G is C₁-C₁₂ alkyl, C₄-C₁₂ cycloalkyl, C₇-C₁₅ aralkyl or C₆-C₁₅ aryl groups,

and also with a metal compound of the formula M(L²)₂ or M(L²)₂(L¹)_z,

where the variables are defined as follows:

M is a transition metal from groups 7 to 10 of the Periodic System of the Elements;

L¹ is phosphanes (R⁵)_xPH_{3-x} or amines (R⁵)_xNH_{3-x} with identical or different radicals R⁵, ethers (R⁵)₂O, H₂O, alcohols (R⁵)OH, pyridine, pyridine derivatives of the formula C₅H_{5-x}(R⁵)_xN, CO, C₁-C₁₂ alkyl nitriles, C₆-C₁₄ aryl nitriles or ethylenically unsaturated double bond systems, x being an integer from 0 to 3,
R⁵ is hydrogen, C₁-C₂₀ alkyl groups, which may in turn be substituted by O(C₁-C₆ alkyl) or N(C₁-C₆ alkyl)₂ groups,

C₃-C₁₂ cycloalkyl groups, C₇-C₁₃ aralkyl radicals, and

C₆-C₁₄ aryl groups,

L² is halide ions, R⁶_xNH_{3-x}, where x is an integer from 0 to 3 and R⁶ is C₁-C₁₂ alkyl, and also C₁-C₆ alkyl anions, allyl anions, benzyl anions or aryl anions, it being possible for L¹ and L² to be linked to one another by one or more covalent bonds,

z is a number from 0 to 4,

~~which comprises using~~ and utilizing the reaction product immediately to polymerize or copolymerize olefins in water or a solvent mixture with a water content of at least 50% by volume in the presence of an emulsifier and, optionally, of an activator.

Claim 2 (Original): A process as claimed in claim 1, wherein one or more olefins are emulsion polymerized as a miniemulsion in water, produced with the aid of ultrasound.

Claim 3 (Currently Amended): A process as claimed in claim 1-~~or 2~~, wherein an activator is used.

Claim 4 (Currently Amended): A process as claimed in ~~any of claims 1 to 3~~ Claim 1, wherein said activator comprises olefin complexes of rhodium or of nickel.

Claim 5 (Currently Amended): A process as claimed in ~~any of claims 1 to 4~~ Claim 1, wherein said emulsifier is based on an ionic emulsifier.

Claim 6 (Currently Amended): A process as claimed in ~~any of claims 1 to 5~~ Claim 1, wherein one of said olefins is ethylene.

Claim 7 (Currently Amended): A process as claimed in ~~any of claims 1 to 6~~ Claim 1, wherein one olefin is ethylene and the comonomer is selected from propylene, 1-butene, 1-hexene, and styrene.

Claim 8 (Currently Amended): A process as claimed in ~~any of claims 1 to 7~~ Claim 1, wherein the olefin for polymerization is ethylene.

Claim 9 (Currently Amended): An aqueous dispersion of a polyolefin or copolymer of two or more olefins, obtainable as set forth in ~~any of claims 1 to 8~~ Claim 1.

Claim 10 (Currently Amended): An aqueous dispersion of a polyethylene or ethylene copolymer, obtainable as set forth in ~~any of claims 1 to 8~~ Claim 1.

Claim 11 (Original): An aqueous dispersion as claimed in claim 9 in the form of a miniemulsion.

Claim 12 (Original): The use of an aqueous dispersion of polyethylene as claimed in claim 10 for paper applications such as paper coating or surface sizing, paints, adhesive base materials, foam moldings such as mattresses, applications to textiles and leather, coatings on carpet backings, or pharmaceutical applications.

Claim 13 (New): A paper coating, a paper surface size, a paint, an adhesive base material, a foam molding, a mattress, a textile product, a leather product, a carpet product, a carpet backing, or a pharmaceutical product comprising an aqueous dispersion of polyethylene as claimed in Claim 10.